

[54] MULTIPLEX TRANSMISSION OF ANALOG SIGNALS BY FIBER OPTIC CHANNEL

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[57] ABSTRACT

A communication system in which analog signals are multiplexed and then converted into frequency modulated signals which are applied to the laser of an optical transmitter to intensity modulate the laser output. The laser output is supplied to one end of an optical fiber, the other end of which is connected to an optical receiver. The output signals of the optical receiver are applied to a frequency demodulator, and the output signals of the frequency demodulator are demultiplexed to provide the corresponding analog signals. The system may include pilot tone signals for remote monitoring of conditions at an unmanned station, and preferably, some of the multiplexed signals are emphasized relative to the other signals prior to application to the frequency modulator and are correspondingly deemphasized at the frequency demodulator output.

8 Claims, 4 Drawing Sheets

